

## **WHAT IS CLAIMED IS:**

### **1. An interface comprising:**

a plurality of input/output (I/O) ports, each configured and arranged to pass a corresponding input signal and a corresponding push-to-transmit (PTT) command; and

a corresponding plurality of voice-operated-transmit (VOX) circuits, each configured and arranged to receive the corresponding input signal and to produce, according to a predetermined relation between a level of the input signal and a corresponding threshold, a corresponding channel activation signal;

a switching matrix configured and arranged to receive the plurality of input signals and channel activation signals,

wherein the plurality of VOX circuits is further configured and arranged to prevent, during a period of assertion of a channel activation signal to the switching matrix, assertion of any other of the plurality of channel activation signals to the switching matrix, and

wherein each among the plurality of VOX circuits is further configured and arranged to assert the corresponding PTT command to the corresponding I/O port when a noncorresponding channel activation signal is asserted; and

wherein the switching matrix is further configured and arranged to produce an output signal based on an input signal corresponding to an asserted channel activation signal and to provide the output signal at least to the I/O ports corresponding to a nonasserted channel activation signal.

**2. The interface according to claim 1, wherein the plurality of VOX circuits is further configured and arranged to inhibit an assertion of any among the channel activation signals to the switching matrix during a powering-up of the interface.**

3. The interface according to claim 1, wherein each among the plurality of VOX circuits is further configured and arranged to receive an initialization signal during a powering-up of the interface and to inhibit an assertion of the corresponding channel activation signal to the switching matrix according to the initialization signal.

4. The interface according to claim 1, wherein the initialization signal is based on a transient level of a voltage of a power supply of the interface.

5. The interface according to claim 1, wherein at least one among the plurality of VOX circuits is configured and arranged to determine a level of the input signal over a frequency range of 100 Hertz to 500 Hertz and to produce the corresponding channel activation signal according to a predetermined relation between the determined level and a corresponding threshold.

6. The interface according to claim 1, wherein at least one among the plurality of VOX circuits is configured and arranged to determine a level of the input signal over a frequency range centered at a frequency between 100 and 150 Hertz and to produce the corresponding channel activation signal according to a predetermined relation between the determined level and a corresponding threshold.

7. The interface according to claim 1, wherein the switching matrix is further configured and arranged to produce a quiet output signal, the quiet output signal having a voltage level at least one-quarter of a power supply voltage of the interface, and to provide the quiet output signal at least to an I/O port corresponding to an asserted channel activation signal.

9. The interface according to claim 1, said interface further comprising a supply voltage sensor configured and arranged to indicate a predetermined relation between a supply voltage of the interface and a predetermined threshold voltage.

10. The interface according to claim 1, said interface further comprising a plurality of supply voltage sensors, each configured and arranged to indicate a predetermined relation between a supply voltage of the interface and a corresponding predetermined threshold voltage,

wherein an indication by the supply voltage sensor having the lower threshold voltage is suppressed during an indication by the supply voltage sensor having the higher threshold voltage.

11. An interface comprising:

a plurality of voice-operated-transmit (VOX) circuits;

a plurality of input/output ports, at least one among said input/output ports being configured and arranged to establish at least one audio path and at least one control path between a corresponding one among said plurality of VOX circuits and a self-powered two-way radio;

a switching matrix in electrical circuit with said plurality of VOX circuits, said switching matrix being configured and arranged to receive at least one received audio signal and to transmit at least one audio signal for broadcast,

wherein said corresponding one among said plurality of VOX circuits is configured and arranged to receive said at least one audio signal for broadcast, and

wherein said corresponding one among said plurality of VOX circuits is further configured and arranged to transmit a keying signal along said at least one control path when an amplitude of said audio signal for broadcast exceeds a predetermined threshold, and

wherein said corresponding one among said plurality of VOX circuits is further configured and arranged to transmit a signal based at least in part on said audio signal for broadcast along said audio path.

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